

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A removable electrocoagulative anastomosis device for the production of an electrocoagulated anastomosis between first and second hollow organs, the device comprising:

an inner sleeve to be mounted around an end of the first hollow organ such that the end of the first hollow organ can then be turned inside out to lie over an end portion of the inner sleeve; and

an outer sleeve to be mounted around an end of the second hollow organ after the end of the second hollow organ has been arranged over the inside out end of the first hollow organ, wherein

each of the inner and outer sleeves comprises two components and is separable or openable such that the inner and outer sleeves can be removed from the first and second hollow organs without severing them after formation of the electrocoagulated anastomosis is complete,

each of the inner and outer sleeves comprises an electrical connector coupled to electrically conductive material, wherein the inner sleeve comprises two annular contact surfaces which are electrically connected to one another by way of connecting elements, wherein an annular contact surface is connected to an electrical supply cable, and

wherein the electrical connectors of the inner and outer sleeves can be connected to an external current or voltage source so that a current or a voltage can be applied to the electrically conductive material of the inner and outer sleeves to form the electrocoagulated anastomosis, and

an outer circumference of the entire end portion of the inner sleeve over which the first hollow organ lies is smooth.

2. (Previously presented) The device according to Claim 1, wherein at least one of the inner sleeve and the outer sleeve is made substantially of the electrically conductive material.

3. (Previously presented) The device according to Claim 1, wherein at least one contact surface made of electrically conductive material is disposed at least one of the outer surface of the inner sleeve and the inner surface of the outer sleeve.

4. (Previously presented) The device according to Claim 3, wherein the contact surfaces on the inner sleeve and the outer sleeve are arranged circumferentially.

5. (Previously presented) The device according to Claim 1, wherein at least one of the inner sleeve and the outer sleeve is constructed of pivotable components.

6. (Previously presented) The device according to Claim 5, wherein the pivotable components of the sleeves comprise catch elements to interlock in the closed position.

7. (Previously presented) The device according to Claim 1, wherein at least one of the inner sleeve and the outer sleeve comprises predefined breaking sites.

8. (Previously presented) The device according to Claim 1, wherein the outer sleeve is formed by a wire arranged in the shape of a loop.

9. (Previously presented) The device according to Claim 1, wherein the inner sleeve comprises fitting elements and the outer sleeve comprises fitting elements of complementary shape, which fit into one another in the arrangement used during electrocoagulation.

10. (Previously presented) The device according to Claim 1, wherein at least one of the inner sleeve and the outer sleeve is made of a plastics material.

11. (Previously presented) The device according to Claim 1, wherein each of the inner and outer sleeves comprises a contact surface made of stainless steel.

12. (Previously presented) The device according Claim 1, wherein an apparatus is provided to measure the impedance between the contact surfaces of the sleeves.

13. (Previously presented) The device according to Claim 1, wherein a temperature sensor is disposed on at least one of the inner sleeve and the outer sleeve.

14. (Previously presented) The device according to Claim 1, wherein a control means is connected to one of the current source and the voltage source.

15. (Previously presented) The device according to Claim 14, wherein the control means comprises a time-switch.

16. (Previously presented) The device according to Claim 12, wherein the impedance-measurement apparatus is connected to one of the current source, the voltage source, and a control means connected to one of the current source and the voltage source.

17. (Previously presented) The device according to Claim 13, wherein the temperature sensor is connected to one of the current source, the voltage source, and a control means connected to one of the current source and the voltage source.

18. (Previously presented) The device according to Claim 1, wherein the sleeves have a substantially cylindrical cross section.

19. (Currently amended) A removable electrocoagulative anastomosis system for production of electrocoagulated anastomoses between hollow organs, comprising:

an inner sleeve comprising a substantially tubular end portion, said inner sleeve constructed to be positioned around a first hollow organ proximate an end of said first hollow organ such that said end can then be everted over an outer circumferential portion of said substantially tubular end portion of said inner sleeve;

an outer sleeve constructed to be positioned around and to substantially enclose an outer circumference of a second hollow organ that has been pushed over both said inner sleeve and said everted end of said first hollow organ, wherein

said inner sleeve comprises two annular contact surfaces which are electrically connected to one another by way of connecting elements, wherein an annular contact surface is connected to an electrical supply cable.

said inner sleeve comprises an inner sleeve electrically conductive portion that extends substantially entirely around said outer circumference of said inner sleeve and an inner sleeve electrical connector,

said outer sleeve comprises an outer sleeve electrically conductive portion that extends substantially entirely around an inner circumference of said outer sleeve and an outer sleeve electrical connector,

each of said inner and outer sleeves is openable or separable in a fashion that permits removal of said sleeves from said first and second hollow organs without severing said first or second hollow organ after completion of an electrocoagulated anastomosis, and

said outer circumference of said substantially tubular end portion is smooth.

20. (Canceled)

21. (Previously presented) The system of claim 19, wherein said inner circumference of said outer sleeve is smooth.

22. (Previously presented) The system of claim 19, comprising a regulated current or voltage source connected to said electrically conductive portion of said inner sleeve and said electrically conductive portion of said outer sleeve for effecting electrocoagulative anastomosis of said first and second hollow organs.

23. (Previously presented) The system of claim 19, wherein said inner sleeve is made substantially of an electrically conductive material.

24. (Previously presented) The system of claim 19, wherein
said inner sleeve, excepting said inner sleeve electrically conductive portion, is made substantially of a non-electrically conductive material, and

said inner sleeve electrically conductive portion comprises an electrically conductive contact surface at and extending substantially entirely around said outer circumferential portion of said substantially tubular end portion.

25. (Previously presented) The system of claim 19, wherein said outer sleeve is made substantially of an electrically conductive material.

26. (Previously presented) The system of claim 19, wherein

said outer sleeve, excepting said outer sleeve electrically conductive portion, is made substantially of a non-electrically conductive material, and

said outer sleeve electrically conductive portion comprises an electrically conductive contact surface at and extending substantially entirely around an inner circumference of said outer sleeve.

27. (Previously presented) The system of claim 19, wherein said inner sleeve electrically conductive portion does not extend along an entire length of said inner sleeve

28. (Previously presented) The system of claim 19, wherein said outer sleeve electrically conductive portion does not extend along an entire length of said outer sleeve

29. (Currently amended) A removable electrocoagulative anastomosis system for production of electrocoagulated anastomoses between hollow organs, comprising:

an inner sleeve constructed to be positioned around a first hollow organ proximate an end of said first hollow organ such that said end can then be everted over an outer circumferential portion of said inner sleeve;

an outer sleeve constructed to be positioned around and to substantially enclose an outer circumference of a second hollow organ that has been pushed over said inner sleeve and said everted end of said first hollow organ, wherein

said inner sleeve comprises an inner sleeve body made substantially of a first material and an inner sleeve electrically conductive contact surface made substantially of a second material that differs from said first material, said inner sleeve electrically conductive contact surface being provided on said outer circumferential portion of said inner sleeve, forming at least one closed surface substantially entirely around said outer circumferential

portion of said inner sleeve and extending in a longitudinal direction of said inner sleeve for a length that is less than a length of said inner sleeve in said longitudinal direction, said inner sleeve further comprises an inner sleeve electrical connector coupled to the inner sleeve electrically conductive contact surface, and said inner sleeve further comprises two annular contact surfaces which are electrically connected to one another by way of connecting elements, wherein an annular contact surface is connected to an electrical supply cable,

said outer sleeve comprises an outer sleeve electrically conductive contact surface on an inner circumference of said outer sleeve and an outer sleeve electrical connector coupled to the outer sleeve electrically conductive contact surface, said outer sleeve electrically conductive contact surface forming at least one closed surface entirely around said inner circumference of said outer sleeve, and

each of said inner and outer sleeves is openable or separable in a fashion that permits removal of said sleeves from said first and second hollow organs without severing said first or second hollow organ after completion of said electrocoagulated anastomoses.

30. (Currently amended) A removable electrocoagulative anastomosis system for production of electrocoagulated anastomoses between hollow organs, comprising:

an inner sleeve constructed to be positioned around a first hollow organ proximate an end of said first hollow organ such that said end can then be everted over an outer circumferential portion of said inner sleeve;

an outer sleeve constructed to be positioned around and to substantially enclose an outer circumference of a second hollow organ that has been pushed over said inner sleeve and said everted end of said first hollow organ, wherein

said inner sleeve comprises an inner sleeve electrically conductive contact surface provided on said outer circumferential portion of said inner sleeve and an inner sleeve electrical connector coupled to the inner sleeve electrically conductive contact surface and the inner sleeve electrically conductive contact surface forming at least one closed surface substantially entirely around said outer circumferential portion of said inner sleeve,

said inner sleeve further comprises two annular contact surfaces which are electrically connected to one another by way of connecting elements, wherein an annular contact surface is connected to an electrical supply cable,

said outer sleeve comprises an outer sleeve body made substantially of a first material and an outer sleeve electrically conductive contact surface made substantially of a second material that differs from said first material, said outer sleeve electrically conductive contact surface being provided on an inner circumference of said outer sleeve, forming at least one closed surface substantially entirely around said inner circumference of said outer sleeve and extending in a longitudinal direction of said outer sleeve for a length that is less than a length of said outer sleeve in said longitudinal direction, said outer sleeve further comprises an outer sleeve electrical connector coupled to the outer sleeve electrically conductive contact surface, and

each of said inner and outer sleeves is openable or separable in a fashion that permits removal of said sleeves from said first and second hollow organs without severing said first or second hollow organ after completion of said electrocoagulated anastomoses.